

## REMARKS

Claims 1-12 are pending in the application and have been rejected. Claims 1, 5, and 10 have been amended. Claim 2 has been canceled. Claim 13 has been added. Reconsideration and allowance of Claims 1 and 3-13 in view of the above amendments and following remarks is respectfully requested.

### Objection to the Abstract

The Examiner has objected to the abstract for containing insufficient description of the invention and has required correction. Applicants have amended the abstract. Withdrawal of the objection is respectfully requested.

### The Rejection of Claims 1, 5, and 10-12 Under 35 U.S.C. § 102

Claims 1, 5, and 10-12 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,549,791, issued to Herron et al. Withdrawal of the rejection is requested for the following reasons.

The Examiner states that the Herron reference does not teach or suggest bleached fibers having a Whiteness Index greater than unbleached fibers. Claims 1, 5, and 10 have been amended to recite that the product crosslinked cellulosic fibers have a Whiteness Index greater than polyacrylic acid crosslinked cellulosic fibers that have not been treated with the bleaching agent.

Because the cited reference fails to exactly describe the invention as now claimed, the reference is not anticipatory. Withdrawal of this rejection is respectfully requested.

### The Rejection of Claim 2 Under 35 U.S.C. § 103(a)

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,549,791, issued to Herron et al., in view of U.S. Patent Application Publication No. US 2003/0208859, to Neogi et al. Claim 2 has been canceled obviating this grounds for

rejection. However, the recitation of Claim 2 has been incorporated into the pending independent claims, Claims 1, 5, and 10. The following comments address the obviousness rejection of originally presented Claim 2 and the nonobviousness of the invention as now claimed in view of the cited references.

The Examiner states that the Herron reference does not teach that bleached fibers have a Whiteness Index greater than unbleached fibers. The Examiner relies on the Neogi reference as teaching that bleaching indirectly elevates whiteness. Applicants respectfully submit that the Neogi reference is not citable as a reference against the present application.

The Neogi reference has a publication date of November 13, 2003. The present application was filed March 31, 2004, less than one year after the publication of the Neogi reference. Therefore, the Neogi reference is a § 102(e) reference with respect to the present application. Like the pending application, the Neogi reference is assigned to Weyerhaeuser Company. Pursuant to 35 U.S.C. § 103(c)(1), subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of Section 102, shall not preclude patentability under Section 103 where the subject matter and the claimed invention was, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. Because the Neogi reference is a § 102(e) reference (invention by another) and was assigned to Weyerhaeuser Company at the time the present invention was made, and because the present application is also assigned to Weyerhaeuser Company, pursuant to 35 U.S.C. § 103(c)(1), the Neogi reference is not available as prior art citable against the present application.

Because the Neogi reference is unavailable as a prior art reference, and because the Herron reference fails to teach, suggest, or provide any motivation to make bleached polyacrylic acid crosslinked cellulosic fibers having the recited Whiteness Index properties, the claimed

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invention is nonobvious and patentable over the Herron reference. Withdrawal of the rejection is respectfully requested.

The Rejection of Claims 3, 4, and 6-9 Under 35 U.S.C. § 103(a)

Claims 3, 4, and 6-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,549,791, issued to Herron et al., in view of U.S. Patent No. 5,562,740, issued to Cook et al. Withdrawal of the rejection is requested for the following reasons.

Claims 3 and 4 depend from Claim 1, and Claims 6-9 depend from Claim 5. Each of Claims 1 and 5 have been amended to recite that the product bleached fibers have a Whiteness Index greater than polyacrylic acid crosslinked cellulosic fibers that have not been treated with the bleaching agent.

The Herron reference does not teach bleaching polyacrylic acid crosslinked fibers with hydrogen peroxide or sodium hydroxide, and does not describe bleached fibers having the recited Whiteness Index. The Herron reference relates to polyacrylic acid crosslinked fibers having a Water Retention Value (WRV) from about 25 to about 60. See, for example, Claim 1. The reference states that suitable polyacrylic acid crosslinked fibers have WRV's from about 25 to about 50 (see Col. 13, lines 10-14), which is the preferred range (see Col. 8, lines 26-31). Furthermore, regarding Herron's teaching with respect to bleaching, the reference states that "post-crosslinking bleaching steps have been found to affect WRV." See Col. 13, lines 15-16. Applicants submit that, although the reference notes post-crosslinking bleaching treatment, the reference teaches away from bleaching polyacrylic acid crosslinked fiber by suggesting that bleaching steps have been found to adversely affect WRV.

Applicants respectfully submit that the Herron reference fails to suggest or provide any motivation to bleach polyacrylic acid crosslinked fibers.

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Although the Cook reference solves the problem of odor and brightness for certain crosslinked cellulosic fibers by treatment with alkaline hydrogen peroxide, the reference does not teach or suggest that polyacrylic acid crosslinked fibers would benefit from such a treatment. The reference addresses the well-known problems of odor and lack of brightness of citric acid crosslinked fibers. The reference does not contemplate treatment of polyacrylic acid crosslinked fibers. In fact, polyacrylic acid fibers do not suffer from lack of brightness associated with citric acid crosslinked fibers.

The Cook reference describes a method for improving the brightness of C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid crosslinked fibers. Representative among the C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid crosslinked fibers are citric acid crosslinked fibers. Citric acid is a C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid (i.e., a C<sub>3</sub> polycarboxylic acid).

The definition of the crosslinking agent used to produce the crosslinked fibers described in the Cook reference excludes polyacrylic acid as a crosslinking agent. A "C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid" is defined as an organic acid containing two or more carboxyl groups and from 2 to 9 carbon atoms in the chain or ring to which the carboxyl groups are attached. See Col. 6, lines 4-11. Citric acid and 1,2,3-tricarboxypropane are C<sub>3</sub> polycarboxylic acids and 1,2,3,4-tetracarboxybutane is a C<sub>4</sub> polycarboxylic acid. see Col. 6, lines 11-16.

The claimed invention relates to polyacrylic acid crosslinked fibers. Although polyacrylic acid is a polycarboxylic acid, polyacrylic acid is not a C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid. Polyacrylic acid is a polymer having more than 9 carbon atoms in the chain to which the carboxyl groups are attached. The polyacrylic acid crosslinked fibers of the invention are not C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid crosslinked fibers.

The Herron reference fails teaches away from bleaching polyacrylic acid crosslinked fibers. The Cook reference relates not at all to polyacrylic acid crosslinked fibers and only

addresses the well-known odor and brightness problems associated with citric acid crosslinked fibers specifically (and, perhaps, C<sub>2</sub>-C<sub>9</sub> polycarboxylic acid crosslinked fibers generally). Accordingly, the combined teachings of the cited references fails to teach or suggest the invention that is now claimed, bleached polyacrylic acid crosslinked fibers having a Whiteness Index greater than polyacrylic acid crosslinked cellulosic fibers that have not been treated with the bleaching agent.

Because the cited references, either alone or in combination, fail to teach, suggest, provide any motivation to make, or otherwise render obvious the invention that is now claimed, the claimed invention is nonobvious and patentable over the cited references. Withdrawal of the rejection is respectfully requested.

The Provisional Obviousness-Type Double Patenting Rejection

Claims 1-4 and 10-12 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 9, and 10 of copending application No. 10/815,206 in view of U.S. Patent No. 6,211,296, issued to Frate et al.

Applicants note the provisional double patenting rejection and will file a terminal disclaimer on the Examiner's indication of allowable subject matter.

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## CONCLUSION

In view of the above amendments and foregoing remarks, applicants believe that Claims 1 and 3-13 are in condition for allowance. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicants' attorney at 206.695.1755.

Respectfully submitted,

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